



SPECTRAL DATA SERVICES, INC.

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DECLARATION OF DR. GARY L. TURNER

I, Gary L. Turner, declare and state that:

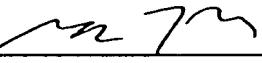
1. I received a Bachelor of Science degree in Chemistry from the University of Illinois, Urbana, Illinois in 1978 and a Doctorate degree in Physical Chemistry at the University of Arkansas, Fayetteville, Arkansas in 1982.
2. From July 1982 to June 1988, I was a research associate for Dr. E. Oldfield, at the University of Illinois, Urbana, Illinois.
3. From August 1985 to the present, I have been employed by Spectral Data Services, Inc., where my duties include obtaining Nuclear-Magnetic-Resonance data on sample materials.
4. From April 1986 to August 1990 I was also employed as the Vice-President of Probe Systems, Inc., where I was responsible for designing Nuclear-Magnetic-Resonance (NMR) equipment.
5. I have published 38 peer-reviewed scientific papers, a list of which is shown in the Attachment.
6. Over the last year, I obtained ^1H MAS NMR data on about 300 blind samples of compounds provided by BlackLight Power, Inc.
7. A 270 MHz NMR Spectrometer, operating at a Larmor frequency of 270.6196 MHZ was used. The spectrometer was equipped with a Tecmag operating system and Henry Radio amplifiers for pulse generation. The probe was a 7 mm Doty Scientific Standard Probe. The data was collected with a pulse angle of about 15°, with a two second delay between pulses. The samples were spun at two speeds, usually at 4.5 and 3.5 KHz, to identify the spinning sidebands. Typically, 200 transients were collected for each spectrum. The data was processed using NUTS (Acorn NMR, Inc.) software.
8. Some of the samples showed signals in regions that are not typical. Most ^1H MAS NMR signals are observed from about 10 to 0 ppm, where ppm represents the shift from the chemical shift standard, tetramethylsilane. Signals for BLP samples were observed at -4 to -5 ppm. Since 1978, I have been primarily conducting NMR scans and I have never observed signals in the region of -4 to -5 ppm before.

Declaration of Gary L. Turner

Page 2 of 2

9. For sample 080304BLP1, in the ^1H MAS NMR spectrum two unusual signals were observed, at -4.1 and -4.5 ppm. The only compounds known to have chemical shifts in this region are transition metal hydrides, in particular Mg_2NiH_4 . Elemental analysis (Galbraith Laboratories, Inc., Knoxville, TN) showed that Mg and Ni are not detected in this sample, and that K was the main metal present. Earlier NMR data has shown that the hydride of K appears at about 1.0 ppm. Therefore, these results suggest that the signals at -4.1 and -4.5 ppm represent a novel species, and do not correspond to any known metal hydride.

10. I declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

By 
Dr. Gary L. Turner

Date: 8/24/04